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Caroline G. Chicoine

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Technology Center 2600

Application of: Kamath

Group No.: 2838

Serial No.:

10/071,775
10/471,775

Atty. Docket No.: 37125/31374

Filed:

February 7, 2002

For:

Autotransformer-Based
System and Method of
Current Harmonics
Reduction in a Circuit

Examiner:

Tuyen T. Nguyen

Commissioner for Patents
Alexandria, VA 22313-1450

RESPONSE TO OFFICE ACTION

Applicant submits this paper in response to the Office Action mailed on October 7, 2003.

It is believed that a one-month extension of time is required in connection with this filing.

However, in the event that an additional extension of time is necessary to prevent abandonment of this application, then Applicant hereby petitions for such additional extension under 37 C.F.R. § 1.136(a), and any fees required therefore are hereby authorized to be charged to our Deposit Account 20-0823.

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Claims 20-27 are presently pending. The claims have been restricted into the following groups of invention:

- I. Claims 20-23: autotransformer
- II. Claims 24-27: method of reducing harmonics in a circuit

Applicant hereby provisionally elects Group II, which consists of claims 24-27, with traverse. The Examiner concludes that invention II has separate utility such as the method of reducing the harmonics in a circuit not using the autotransformer of invention I. However, this other use is not reasonable in light of the claims.

Claim 24 reads as follows:

A method of reducing harmonics in a circuit, the circuit being powered by a main three phase power source having a main three phase voltage set, each main phase voltage having a main voltage amplitude and a main voltage phase, the method comprising:

connecting a plurality of primary windings in a delta configuration; and

connecting a plurality of secondary windings to the plurality of primary windings, each of the secondary windings being electrically connected to a primary winding and magnetically coupled to a different primary winding such that the autotransformer generates a set of auxiliary voltages, each auxiliary voltage having an auxiliary voltage amplitude and phase, the auxiliary voltage amplitude ranging between .70 and .75 times the main voltage amplitude, and the auxiliary voltage phase ranging between 55 and 65 degrees out of phase with the main voltage phase.

Claim 20 reads as follows:

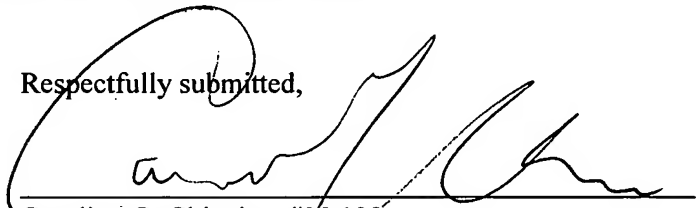
An autotransformer for use in reducing harmonics in a circuit having a main three phase voltage set, each main phase voltage having a main voltage amplitude and a main voltage phase, the autotransformer comprising:

a plurality of primary windings connected in a delta configuration; and

a plurality of secondary windings, each of the secondary windings being electrically connected to a primary winding and magnetically coupled to a different primary winding, whereby a set of auxiliary voltages is generated, each auxiliary voltage having an auxiliary voltage amplitude and phase, the auxiliary voltage amplitude ranging between .70 and .75 times the main voltage amplitude, and the auxiliary voltage phase being between 55 and 65 degrees out of phase with the main voltage phase.

The steps of method claim 24 expressly recite the same structure of the autotransformer claimed in claim 20. In other words, the method of claim 24 (and claims 25-27 that depend therefrom) use the autotransformer of claim 20 in order to reduce harmonics. As a result, Applicant respectfully submits that the invention of claim 20 (and claim 21 which depends therefrom) and claim 24 are not separately usable. Accordingly, Applicant respectfully requests that the Examiner reconsider his restriction requirement and restrict this application to the invention of claims 20-21 and 24-27. If not, Applicants respectfully request that at least claims 24-27 proceed to examination. If the Examiner has any outstanding issues regarding this response, he is urged to contact the undersigned at the number listed below.

Respectfully submitted,



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